

Significance. First record of *W. columbiana* in s. CA, a se. extension of 387 km from Oso Flaco Lake, San Luis Obispo Co. This species is clearly distinguished from *W. punctata* by its globose frond which is minutely roughened, but not flattened, on the dorsal surface (Fig. 1).—WAYNE P. ARMSTRONG, Palomar College, San Marcos, CA 92069. (Received 26 Nov 1980; accepted 23 Feb 1981.)

CALYPTRIDIMUM PULCHELLUM (Eastw.) Hoov. (PORTULACACEAE).—USA, CA: Mariposa Co.: three small, widely separated populations on ridge e. of Ben Hur Rd. (T6S R18E S14 e.½ se.¼ and S24 nw.¼ nw.¼), 592 m, 1 May 1980, *Hamon 8019* (UC, FSC); this site is thought to be Pea Ridge, the type locality, found with *Lupinus deflexus* and a pale color form of *Lupinus stiversii*; granite dome 100 m w. of Mariposa Cr. and 400 m n. of Buckeye Rd. on the Jack Kirk Ranch (T6S R18E S11 se.¼ nw.¼), 460 m, 11 May 1980, *Hamon 8064* (UC, FSC, HSC), with *Lupinus deflexus* and *Streptanthus diversifolius*; Madera Co.: s. slope of small hill, 400 m w. of Ahwahnee (T6S R20E S36 ne.¼), 730 m, 26 May 1980, *Hamon*, pers. obs. (no collection made because of extremely small, impacted population), associated with *Lupinus stiversii*; Indian Lakes Estates, 3 km e. of SH41 on Road 417 (Picyune Rd.) two populations 400 m apart (T8S R21E S28), 610 m: 11 May 1980, *Hamon 8049* (UC, FSC); 17 May 1980, *Hamon 8067* (UC): these are the largest populations noted, associated with *Lupinus citrinus*, *Mimulus layneae*, *Streptanthus diversifolius*; Fresno Co., decomposed granite outcrop on e.-facing slope 2 km sw. of Sugarloaf Hill, Sierra Natl. For. (T9S R24E S30 sw.¼ sw.¼), 1097 m, 20 May 1980, *Hamon 8078* (UC) associated with *Lupinus citrinus* and *Camissonia hirtella*.

Previous knowledge. Collected only twice; originally at "Pea Ridge" by J. W. Congdon on 19 April 1901 (Eastwood, Bull. Torrey Bot. Club 29:79. 1902) and then by R. F. Hoover in 1938 (Hoover, Leaf. W. Bot. 2:222–225. 1940). Thought to occur only in the type locality (Hinton, Brittonia 27:197–208. 1975) and categorized as possibly extinct (CNPS Spec. Publ. 1. 1980).

Diagnostic characteristics. Diminutive annual with sparsely fibrous root system. Inflorescence terminal and paniculate, stigma not sessile, inserted anthers a pale, rose-red that fades to yellow on drying.

Significance. Rediscovery of species presumed extinct, with new records for Fresno and Madera Counties. Only one population found on public land (Sierra Natl. For.) with all others endangered by foothill real estate development. All populations were only a few meters in diameter with few individual plants.—DAN HAMON, 2823 E. Lansing Way, Fresno, CA 93726. (Received 9 Jan 1981; accepted 18 Feb 1981.)

NOTES AND NEWS

SPECIFIC STATUS FOR *Trifolium haydenii* VAR. *barnebyi* (FABACEAE).—In 1947 H. Dwight Ripley and Rupert Barneby collected an unusual *Trifolium* in the foothills of the Wind River Mountains in Wyoming. This collection was referred by Gillett (Canad. J. Bot. 50:1975–2007. 1972) to *T. gymnocarpon* Nuttall, with the comment that, forwardly directed hairs on the ovary "eliminates the possibility of its being *T. haydenii* as originally identified. The leaflets, too, which are quite glabrous, fit the shape of those of *T. gymnocarpon*." More recently Isely (Brittonia 32: 55–57. 1980) described *T. haydenii* Porter var. *barnebyi* from the same collection. Both Gillett and Isely had only the original material to work with. This past summer we revisited the original locality, made extensive observations on the population, and collected more material. It was

TABLE 1. SELECTED CHARACTERISTICS OF THREE TAXA OF *Trifolium*.

Characteristic	<i>T. gymnocarpon</i>	<i>T. barnebyi</i>	<i>T. haydenii</i>
Distribution	OR, ID, & c. WY to CA, AZ, & NM	c. WY	ID, MT, extreme nw. WY
Habitat	Desert to low montane	Sagebrush-juniper zone	Alpine to high montane
Habit	Cespitose	Densely matted	Loosely matted
Petioles	Pubescent	Pubescent	Glabrous
Leaflets	Pubescent dorsally	Glabrous mostly	Glabrous
Leaflet shape	1-2 times as long as wide	Twice as long as wide	1-1.5 times as long as wide
Leaflet veins	Wide spaced 5-10 pairs primary	Narrow spaced 12-18 pairs primary	Wide spaced 5-10 pairs primary
Peduncles	Pubescent	Pubescent	Glabrous
Pedicels	Pubescent	Pubescent	Glabrous
Calyx	Pubescent	Pubescent usually	Glabrous
Calyx teeth	About as long as tube	1.5-2 times as long as tube	1-2 times as long as tube
Banner	2.5-4 times as long as wide	1.5-2 times as long as wide	1.5-2 times as long as wide
Ovary	Pubescent	Pubescent	Glabrous

immediately apparent that this was not *T. haydenii* nor any other *Trifolium* known from this region. Superficially, the plants resembled *T. haydenii* because of the mat-forming habit and lack of an involucre. The habitat, in the sagebrush-juniper zone, was inappropriate for *T. haydenii*, which is found mostly in alpine areas but descends occasionally into high montane forests. Furthermore, this location was considerably south of any known station for *T. haydenii*. On closer examination the plants appeared much closer to *T. gymnocarpon* than to *T. haydenii* except for the mat-forming habit.

Table 1 summarizes characteristics of the three taxa, and reveals that the "barnebyi" material is unique only in the venation pattern of the leaflets. This pattern, with veins more numerous and more closely spaced than in the other two species, is easily observed as different. There are four additional differences from *T. gymnocarpon* and eight additional differences from *T. haydenii*. These combined with field observations of the three taxa make it exceedingly difficult to consider the "barnebyi" material as conspecific with either of the other two species. We therefore elevate *T. haydenii* var. *barnebyi* to specific status.

Trifolium barnebyi (Isely) Dorn & Lichvar, stat. nov.—*Trifolium haydenii* Porter var. *barnebyi* Isely, Brittonia 32:56. 1980.

Mat-forming perennial to 5 cm high; petioles pubescent, 3-18 mm long; leaflets 3, 3-11 mm long, glabrous, or rarely pubescent on dorsal midrib, mostly oblanceolate, usually toothed at least above, closely veined with mostly 12-18 pair of primary veins on larger leaflets, the veins usually much less than 0.5 mm apart; peduncles and pedicels pubescent; involucre lacking; flowers 8-18, 8-13 mm long; calyx 4-6 mm long, pubes-

cent at least in sinuses between teeth (rarely glabrous), the teeth mostly 1.5–2 times as long as tube; corolla whitish, drying brownish; ovary pubescent at least on dorsal suture; ovules mostly 1–4. Locally common on ledges of pale red sandstone and on sand pockets at base of sandstone outcrops at about 1950 m. elev. about 25 km sse. of Lander, Fremont Co., WY. TYPE: USA, WY, Fremont Co., 16 km (10 mi) s. of Perrin, 1950 m., 30 Jun 1947, *Ripley and Barneby 8924* (Holotype: NY; isotypes: NY, ISC, RM!). Other collections studied: USA, WY, Fremont Co., T31N R99W S25 sw.¼, 1950 m., crevices of pale red sandstone, 27 Jun 1980, *Dorn 3483* (RM); *Lichvar 2955* (RM).

The three species can be distinguished easily using the following key.

1. Plants glabrous throughout. *T. haydenii*
1. Plants pubescent at least on peduncles, pedicels, and ovaries.
 2. Plants mat-forming; leaflets glabrous except rarely on dorsal midrib.
 *T. barnebyi*
 2. Plants not mat-forming; leaflets obviously pubescent, at least dorsally.
 *T. gymnocarpon*

Trifolium barnebyi is likely derived from *T. gymnocarpon*, even though the growth habits of the two are quite different. This view is supported by morphological similarities and by the dispersal and habitat. It is unlikely that *T. haydenii* was ever as far south as the type locality of *T. barnebyi*, for if it was, relict populations would likely have been found in the Wind River Mountains. *Trifolium barnebyi* is apparently adjusted to a specialized sandstone habitat and is presumably endemic there. The few similar habitats, all within 30 km of the known population, have yet to be investigated.—ROBERT D. DORN, Box 1471, Cheyenne, WY 82001 and ROBERT W. LICHVAR, The Nature Conservancy, Wyoming Natural Heritage Program, 1603 Capitol Ave., #325, Cheyenne 82001. (Received 10 Nov 1980; accepted 30 Jan 1981; revised version received 10 Feb 1981.)

Carex whitneyi OLNEY (CYPERACEAE): NOT ENDANGERED.—A survey was conducted from May through August 1980 to locate, document, and describe undiscovered populations of *Carex whitneyi* within its previously known range. The species is currently on List 2 of the CNPS Inventory of Rare and Endangered Vascular Plants of California (Smith et al., 1980) and the previous known range was limited to Mariposa, Tuolumne and Fresno Cos., CA.

Individual plants were identified and enumerated and culms were collected and verified by J. T. Howell (Curator Emeritus, CAS). All specimens are deposited at CAS and FSC. The survey identified 35 populations (with a total of 4667 plants) in Fresno Co., 9 populations (2932 plants) in Madera Co., 10 populations (4444 plants) in Tuolumne Co., 8 populations (432 plants) in Alpine Co., and 2 populations (42 plants) in Calaveras Co.

Based on our review of available literature and herbarium and field investigations of morphological and habitat characteristics we conclude that the species should be described as: *Carex whitneyi* Olney.—Densely caespitose; culms 2.5–9 dm tall; blades flat or ± revolute, 2–6 mm wide; spikelets 3 or 4; the terminal male, linear, 0.5–2.5 cm long, the lateral spikelets female, oblong or linear-oblong 1–3 cm long, 5–10 mm wide; female scales ovate, appressed-ascending, or ± spreading at maturity, hyaline-margined, 3–5 nerved; perigynia ovate, obovate, or elliptic-ovate, 3.5–5 mm long, 1.5–2.5 mm wide, tapering or contracted into a bidentulate or oblique beak 0.25–1.0 mm long, the beak somewhat hyaline. Habitat: dry to moist, often sandy; flat or moderate slopes; on the edge of meadows, in open to dense forests; often in disturbed soils where the surface litter has been removed; 1158 to 3658 m; Yellow Pine Forest to Subalpine Forest; Sierra Nevada from Tulare Co. to s. OR and w. NV.